

FIELD OF THE INVENTION

This invention relates to a box having a partition for dividing the interior of the box into separate compartments. More particularly the invention relates to a box having a partition which may be positioned in a box for use or folded out of the way should it not be required.

BACKGROUND OF THE INVENTION

Baked foods such as donuts, cookies, tarts and pies are commonly sold in cardboard boxes which are folded into shape from flat blanks at the time they are filled with the baked goods. Some boxes contain partitions to protect the baked goods from damage should the box be accidentally dropped or otherwise handled roughly.

In some cases partitions are desirable or necessary, in other cases they are not. Partitions are useful where the baked goods are relatively small such as donuts, cookies and tarts but are not where the goods are relatively large such as cakes. In the latter case, the partitions must be removed from the boxes before they are suitable for use.

Boxes which have partitions do not generally have provision for removing the partitions without damaging the boxes. Once removed, the boxes are usually unsightly and do not show the baked good which they contain well. For this reason, bakeries which stock boxes with partitions generally also stock boxes without so that the baked goods always show well. Thus two stocks of boxes are required. Two stocks are, however, undesirable to bakeries because they give rise to additional costs and inconvenience.

I have invented a box which contains a partition which may be used or not. If it is not used, it folds out of the way against other parts of the box. The partition does not occupy any space in the interior of the container and does not detrimentally affect the appearance of the box. Should the partition be used, it is merely folded into position within the box.

SUMMARY OF THE INVENTION

Briefly the partitioned box of my invention includes a lower wall which, in use, is oriented horizontally; front and rear walls and two side walls which extend vertically upward from the horizontally oriented lower wall and which define an enclosure. A lid is connected to the front wall and is fittable with the rear and side walls to close the box. The lid is pivotal from a closed to an open position in which the contents of the box are exposed. The rear wall has lower and upper segments pivotally interconnected along a horizontally extending line. The upper segment is pivotal from a vertical position to a horizontal position. The box has an interior wall having forward and rear edges and being pivotally connected to the upper segment along the rear edge. The interior wall together with the upper segment, when horizontal, define a continuous partition which separates the enclosure into lower and upper compartments. The box is provided with means for supporting the interior wall when it defines the partition.

According to a second embodiment, the rear wall of the box is unfolded but the interior wall has a pair of spaced folds which define inner, intermediate and outer segments. The interior wall folds from a lower position in which the inner segment folds downwardly to a vertical

position adjacent to an inner face of the rear wall while the intermediate and outer segments assume a horizontal position and, as such, define a continuous partition which separates the enclosure into lower and upper compartments. In the upper position, the inner segment folds to a horizontal position which, together with the intermediate segment, when also horizontal, extends across and closes the mouth of the box.

DESCRIPTION OF THE DRAWINGS

The partitioned box of the invention is described with reference to the accompanying drawings in which:

Figure 1 is a perspective view of the partitioned box in which an interior wall is folded outwardly;

Figure 2 is a perspective view of the box in which the interior wall is in a lower position for use as a partition which separates the interior of the box into two vertically spaced compartments;

Figure 3 is a plan view of a blank used to make the box;

Figure 4 is a perspective view of the box in the course of assembly from the blank;

Figure 5 is a perspective view of the box illustrated in the previous drawings but without supporting tabs;

Figure 6 is a perspective view of second embodiment of the box in which an interior wall is folded outwardly;

Figure 7 is a perspective view of the box of Figure 6 in which the interior wall is in the course of being folded inward to a lower position where it forms a partition;

Figure 8 is a perspective view of the box of Figure 6 in which the interior wall is in an upper position where it is adjacent to the upper edges of the box;

Figure 9 is a perspective view of the box in the course of assembly; and

Figure 10 is the blank used to make the box of Figure 6.

Like reference characters refer to like parts throughout the description of the drawings.

DESCRIPTION OF THE PREFERRED EMBODIMENTS

With reference to Figures 1 and 2, the partitioned box has a lower wall 10 which, in use, is oriented horizontally. The box has front and rear walls 12, 14 and spaced side walls 16, 18. The walls extend vertically upward from the lower wall when the latter wall is oriented horizontally and the upstanding walls together define an enclosure for food products.

A lid 20 is connected to the front wall. The lid has side flaps 22, 24 and an end flap 26 which fit snugly into contact with the rear and side walls when the lid is closed to protect the contents of the box. The lid pivots open to expose the contents of the box.

The rear wall has lower and upper segments 30, 32 separated by a horizontally extending fold line 34. The upper segment is joined to an interior wall 36 along a fold line 38. A flap 40 is connected to the interior wall at its edge opposite fold line 41.

The upper segment 32 of the rear wall is pivotal from the vertical position as illustrated in

Figure 4 to a horizontal position illustrated in Figure 2. The direction of pivoting is indicated by arrow 42 in Figure 1. When the upper segment is horizontal, interior wall 36 may be pivoted inwardly in the direction of arrow 44 into the box to the position illustrated in Figure 2 in which it is co-planar with upper segment.

When upper segment 32 and interior wall 36 are co-planar within the box they cooperate with one another to define a continuous partition which separates the enclosure into lower and upper compartments 46, 48.

Flap 40 serves to support the interior wall when the wall is within the box. To this end, the flap extends downwardly and into contact with the lower wall as illustrated in Figure 2. The interior wall is supported at its sides by tabs (one visible and marked 52) The tabs extend inwardly from both side walls of the box at the same level as the interior wall. The tabs also support the upper segment of the rear wall when it too is within the box.

The tabs are a desirable not essential feature of the box. Figure 5 illustrates a box without tabs. Such a box is suitable where the box is used to hold relatively light baked goods such as French pastries.

An aperture 56 is formed in the interior wall adjacent to flap 40. The aperture is large enough to receive a thumb or finger and facilitates to removal of the interior wall from the box to expose the lower compartment.

With reference to Figures 3 and 4, the box is provided with the customary flaps 60, 62, 64

and 66 at both ends of the front and rear walls to hold the walls together when they are standing upright. Flaps 60, 64 interconnect with each other by means of a finger 68 on flap 60 which fits into a slit 70 in flap 64 in the usual fashion and flap 62, 66 are interconnected in the same manner.

Whether the box contains the partition or not is optional. If the partition is not required, the upper segment of the rear wall, when the box is closed, will be vertical, as illustrated in Figure 4. Interior wall 36 will be folded over in contact with the upper edges of the side walls and the lid will be folded over onto the interior wall. The interior of the container will be completely free of obstructions.

Should the partition be required, the upper segment of the rear wall and the interior wall are folded inward as indicated above. As illustrated in Figure 2, part of the rear wall of the box forms the partition. Thus when there is a partition in the box, there is an opening in the rear wall. That opening is indicated generally 72 in Figure 2. When the box is closed, that opening is closed by end flap 26 of the lid. The end flap accordingly serves to protect the contents in the upper compartment of the box when the lid is closed.

With reference to Figure 6, the partitioned box has a lower wall 100 which, in use, is oriented horizontally. Like the box of the previous drawings, the box of Figure 6 has front and rear walls 112, 114 and spaced side walls 116, 117. The walls extend vertically upward from the lower wall when the latter wall is oriented horizontally and a lid 118 is connected to the front

wall and has the same construction as lid 12 of the previous Figures. Tabs (one illustrated and marked 119) are affixed to the side walls of the box and extend inwardly into the interior of the box as do tabs 52 of the previous Figures.

The rear wall is joined to an interior wall 122 along a fold line 124. A flap 126 is connected to the interior wall at its outer edge. The connection is defined by fold line 128. As illustrated in Figure 6, fold lines 128 and 124 are on opposite edges of the interior wall.

The interior wall is divided into three segments, an inner segment 122a, an intermediate segment 122b and an outer segment 122c. Those segments are separated by inner and outer parallel fold lines 130, 132 formed in the interior wall. For the purposes of the description that follows, the “width” of each segment is measured at right angles to the fold lines that define them and the “width” of flap 126 is measured at right angles between its outer edge 126a and fold line 128.

The width of the inner segment 122a is equal to the distance between the upper edge of the box and the level of the partition beneath the upper edge. Those distances are marked 134 on the interior wall of Figure 6 and 136 in Figure 7. Thus distance 134 equals vertical distance 136 measured on the side wall 116. The width of the intermediate segment 122b together with the width of the outer segment 122c are equal to the width of the upper opening or mouth of the box. Those widths are marked 142 and 144 in Figure 6. Thus width 142 equals distance 144.

Interior wall 122 forms a horizontal partition within the box. To form the partition, as

illustrated in Figure 7, the inner segment 122a is folded downwardly until it is adjacent to the rear wall of the box. The intermediate and outer segments are then folded flat so that their upper faces are co-planar and define the upper face of the partition and flap 126 is folded down. Its width, marked 146 in Figure 7 is equal to the height of the partition above the lower wall of the box so that the flap serves to support the partition along its outer edge. Its side edges are supported by tabs 119.

As illustrated in Figure 8, when the partition is not required, the inner and intermediate segments 122a,b of the interior wall are folded flat until their upper faces are co-planar. The wall is then folded over until the two segments contact the upper edges of the side walls of the box. The outer segment 122c of the interior wall is folded downwardly so that the lid can be folded over to close the box.

The width of flap 126 together with the width of the outer segment 122c is equal to the height of the box, marked 150 in the same Figure. Accordingly when the upper faces of inner and intermediate segments 122a, 122b are coplanar as illustrated in Figure 8, the outer segment 122c and flap 126 cooperate to support the former segments adjacent to the upper edge of the box where they will not intrude into the interior of the box.

With reference to Figure 9 and 10, the box is provided with customary flaps at both ends of the front and rear walls and the flaps interconnect in the same way as those illustrated in Figures 3 and 4.

The partitioned box illustrated in the drawings is composed of cardboard which is sufficiently flexible that its walls and flaps will yield to interconnect in the manner described above. The cardboard is however strong enough to remain connected and to retain its shape when it holds baked foods such as donuts, cookies, tarts and pies.

It will be understood however that the box can be composed of other material without departing from the scope of the invention. In addition, modifications can be made in the structure and construction of the box without departing from the scope of the invention.